# 1RU 17” & 19” LCD Console Drawer with Integrated KVM Switch - Single Port / 8 Port / 16 Port

## Optional Remote IP Access

## User Manual

Version 2.0.1

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## BRIEF INTRODUCTION

The ServerLink single port, 8 port and 16 port LCD Console Drawers can control attached servers, computers or a KVM switch from a local or remote console.

The 8 port & 16 port models are loaded with features such as an optional IP based remote console port, On-Screen-Display (OSD) menu, password security, Hotkey control, push button port selection and auto scan control. It has complete keyboard and mouse emulation for simultaneous and flawless PC boot-up process.

With the optional IP based remote console port you can control connected servers locally at the rack or remotely via the Internet using a standard browser. You can securely gain BIOS level access to systems for maintenance, support or failure recovery over the Internet. Communication is secure via SSL encryption.

## PACKAGE CONTENTS

1 x ServerLink LCD Console Drawer with Rack Mounting Sliding Rails
1 x AC Power Cable
1 x Set of VGA, USB and PS/2 cables (Single Port LCD Console Drawer models only)
1 x CD-ROM with User Manuals, Quick Installation Guides and Utilities
1 x Quick Installation Guide

## FEATURES

- Supports combo (PS/2 & USB) interface for connecting to computer ports or KVM switch
- One optional remote console port (Insertion Card : IP Module – 8 & 16 port models only)
- Supports MS Windows, Netware, Unix and Linux
- Supports Mac, Power Mac and Sun Micro Systems with USB connection
- No Software Required - easy computer selection via On-Screen-Display (OSD) menu, push buttons or keyboard Hotkeys
- Provides various Hotkey combinations (Caps-Lock / Scroll-Lock / Num-Lock / L-Alt / L-Ctrl / L-Win / R-Alt / R-Ctrl / R-Win) for switching between computer ports and other control functions
- Provides ACL (Access Control List) security function and stores up to 8 independent user accounts
- Hot Plug - add or remove connected computers without powering off the LCD drawer
- Supports two user layers and search computer/server name
- Keyboard status restored when switching between computers
- Supports daisy chain (8-layer) & cascade (2-layer) function

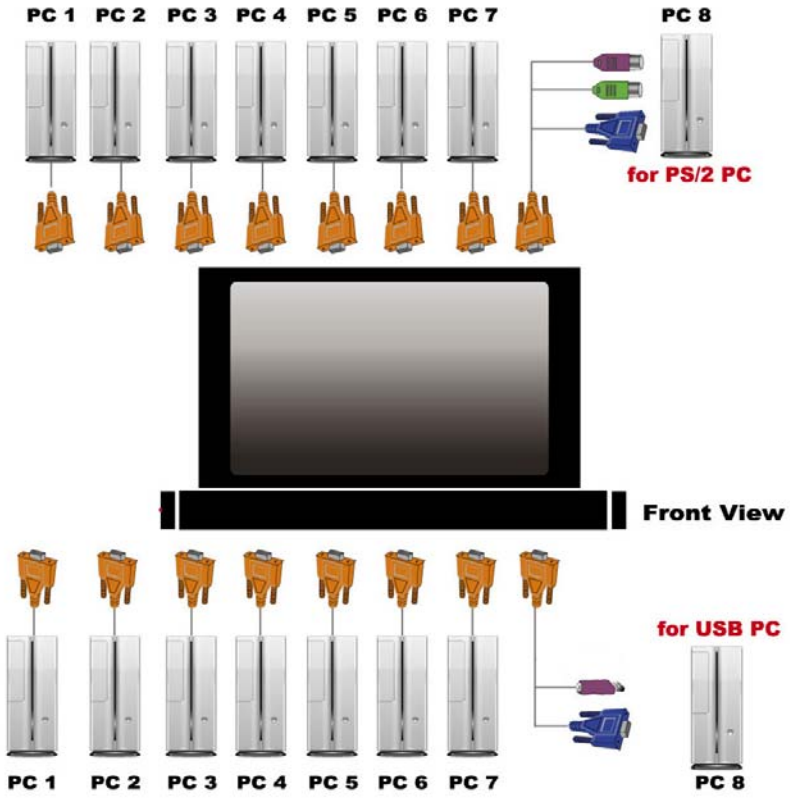
## SPECIFICATIONS

| Feature | Specifications |
|---|---|
| Computer Type | Combo (PS/2 & USB Support) |
| Computer Port Connector | HD15 Pin (Integrated video, keyboard & mouse) |
| No. of Computer Ports | 1 / 8 / 16 |
| Maximum Distance (LCD Drawer to Comp) | 5 metres |
| LCD Resolution | 1280 x 1024 |
| Video Resolution (Remote Console) | 1600 x 1200 for IP-Based remote console |
| Over IP -Based (Optional) Remote Module | RJ45 for 10/100 Ethernet<br>DB9 male for modem, null modem and serial power control<br>USB 2.0 Mini B female |
| Daisy Chaining | Supports Daisy Chain (Bus layer to 8 levels) & (Tree layer to 2 levels) |
| Computer port selection | On Screen Display (OSD) Menu, Hot Key, Push Button |
| Hotkey | Provides various Hotkey Combinations (Cap-Lock / Scroll-Lock / Num-Lock / L-Alt / L-Ctrl / L-Win / R-Alt / R-Ctrl / R-Win) |
| LEDs | Power On & Port Selection |
| Security | Provides ACL (Access Control List) security function and stores up to 8 independent controllable computers lists |
| Multilingual OSD (On Screen Display) control | 8 Languages (English, France, German, Spanish, Italian, Russian, Japanese and Simplified Chinese) |
| Auto-Scan Intervals | 5 ~ 99 Sec |
| Keyboard Emulation | PS/2 or USB |
| Mouse Emulation | PS/2 or USB |
| Max. Comp. Connections | 1024 |
| Housing | Metal |
| Operation Temperature | 0 ~ 50°C |
| Storage Temperature | -20 ~ 60°C |
| Humidity | 0~95%, Non-Condensing |
| Mechanical | 1RU 19” Rack Mount |
| Power | AC 100-240V AC 50/60Hz |
| Dimension (mm) | 450 (W) x 600 (D) x 44 (H) |

**LCD Drawer Front VIEW**

To add a remote IP console module, remove this plate

**8 port LCD Drawer Rear VIEW**



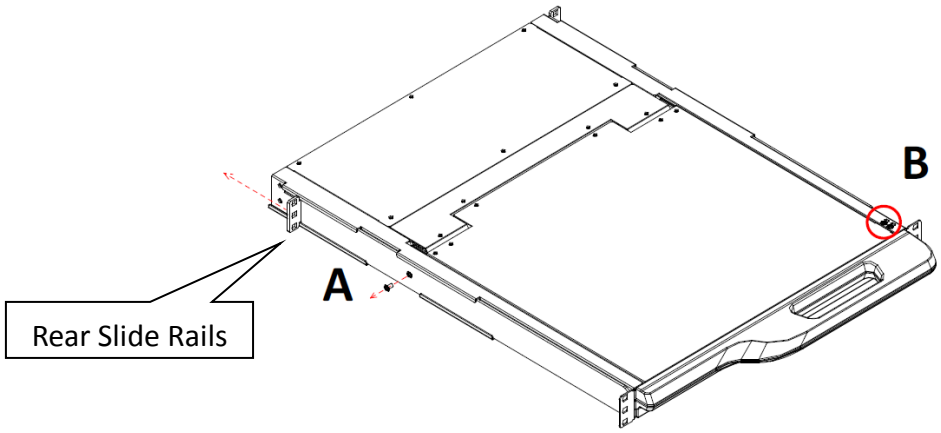

**16 port LCD Drawer Connection Diagram**

## INSTALLATION

**Step 1**

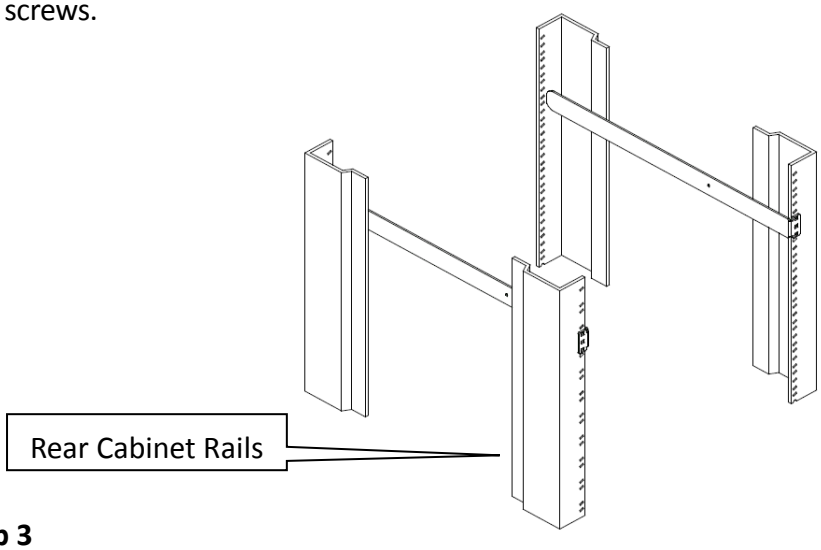
Loosen screw **A** on both sides to slide out and remove the two rear slide rails.

Remove safety stopper **B** by loosening the two screws and moving to unlock position.



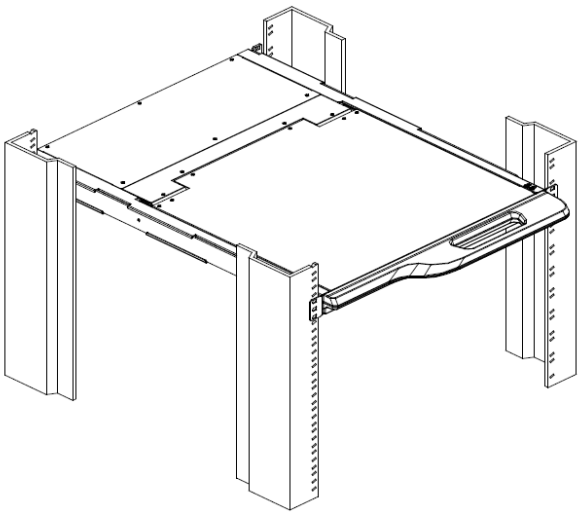

**Step 2**

Attach the two rear slide rails to the rear vertical mounting rails of the rack cabinet using standard M6 cage nuts and screws.




**Step 3**

Position the LCD console drawer so the two rear slide rails will slide into the main body of the LCD console drawer. Attach the mounting ears of the LCD console drawer to the front vertical mounting rails of the rack cabinet using standard M6 cage nuts and screws.



## Single Port LCD Console Drawer

To connect to a KVM switch with PS/2 inputs or a single computer with PS/2 inputs, use the supplied 3-in-1 VGA & PS/2 combo cable.

To connect to a KVM switch with USB inputs or a single computer via its USB port, use the supplied USB type A to USB type A cable. Connect the VGA port using the supplied 3-in-1 VGA & PS/2 combo cable. Do not connect the PS/2 connectors.

## LCD Console Drawer with 8 or 16 Port KVM

On the back of the 8 or 16 port KVM Switch, each of the computer ports has an HD15 pin female connector. This single HD15 pin connector integrates all VGA, USB & PS/2 signals. The USB cable has a 2-in-1 connector at one end and the PS/2 cable has a 3-in-1 connector at one end. Both the USB cable and the PS/2 cable have a single HD15 pin male connector at the other end. Plug the single connector end of the cable into the KVM and the other end of the cable into the computer's 15 pin VGA port.

**2-in-1 VGA & USB Combo Cable**

(a) PS/2 computer - Plug in the PS/2 mouse connector to the computer mouse port and the PS/2 keyboard connector to the computer keyboard port.

**3-in-1 VGA & PS/2 Combo Cable**

(b) USB computer - Plug in the USB connector to the computer's USB port. This single USB connector can handle both keyboard and mouse data.

## Optional 2nd Console Module Installation

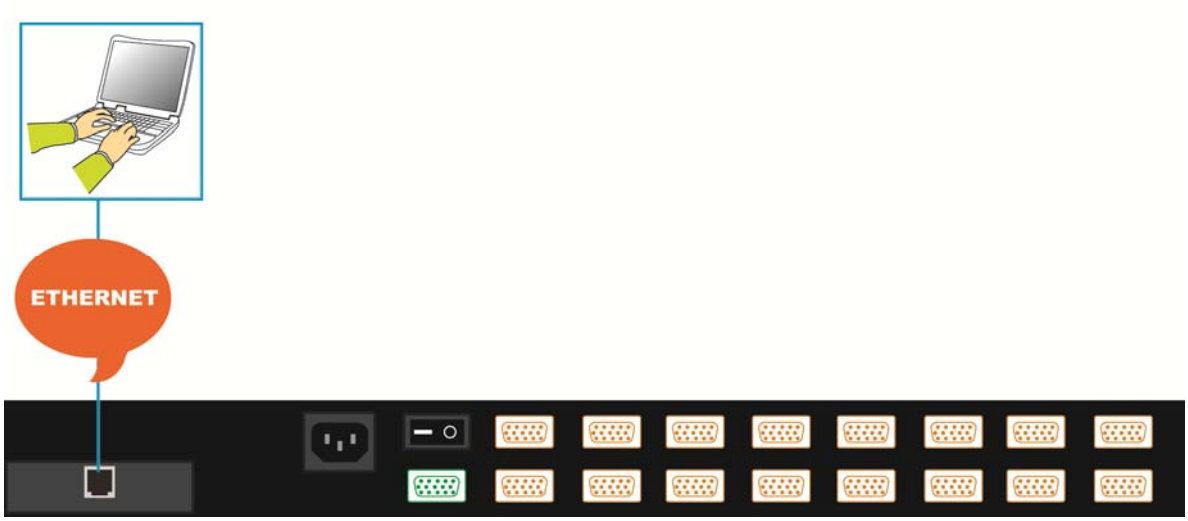
## Remote IP Module

Please refer to the "ServerLink IP Module User Manual" on CD-Rom for detailed setup and operation.

**Installation**: Power off the LCD drawer. Remove the cover of the add-on slot, slide in the Remote IP Module and make sure the module is fully inserted into the slot.

**Serial Power Control**

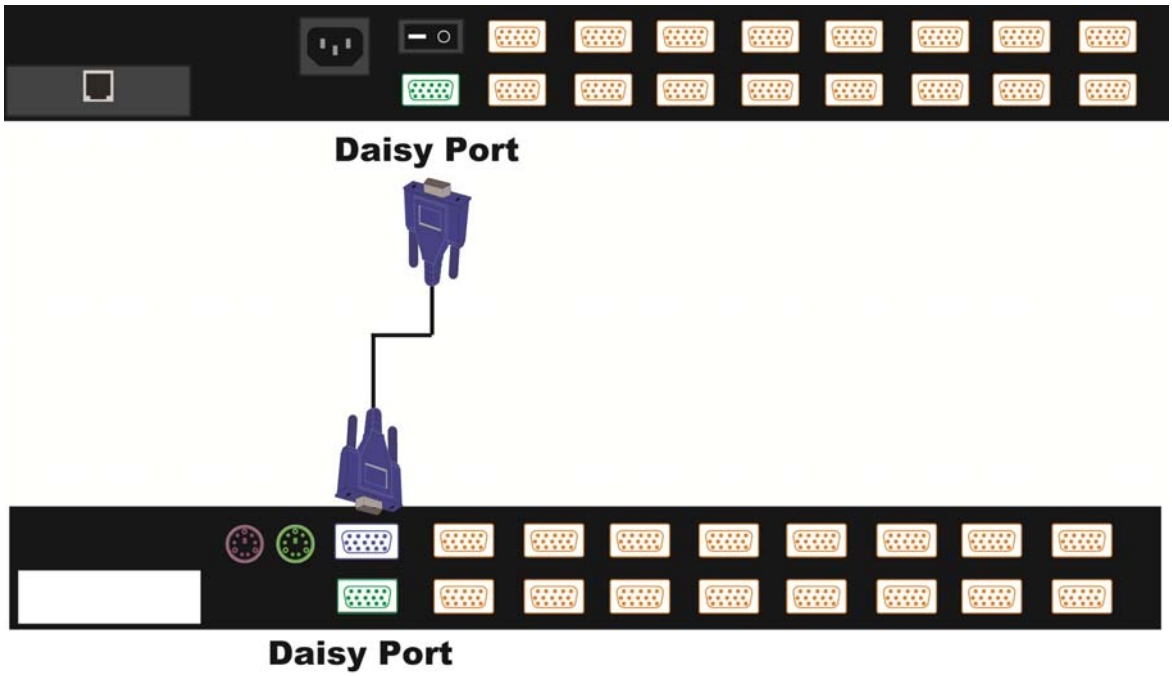
The Remote IP Module comes with a serial port for connecting to any serial device, such as a serial PDU to provide remote power control, such as power on, power off and power cycling of the connected computers/servers.




**Optional IP Module Diagram**

## Daisy Chain Connection

You will need to purchase the optional daisy chain cable. Use one end of the daisy chain cable to connect to the **Daisy Chain port** of the Master KVM switch and connect the other end of daisy chain cable to the **Local Console port** of the next Slave KVM switch. Please repeat the connection procedures for next Slave KVM switch. You can daisy chain up to a maximum of eight (8) banks.

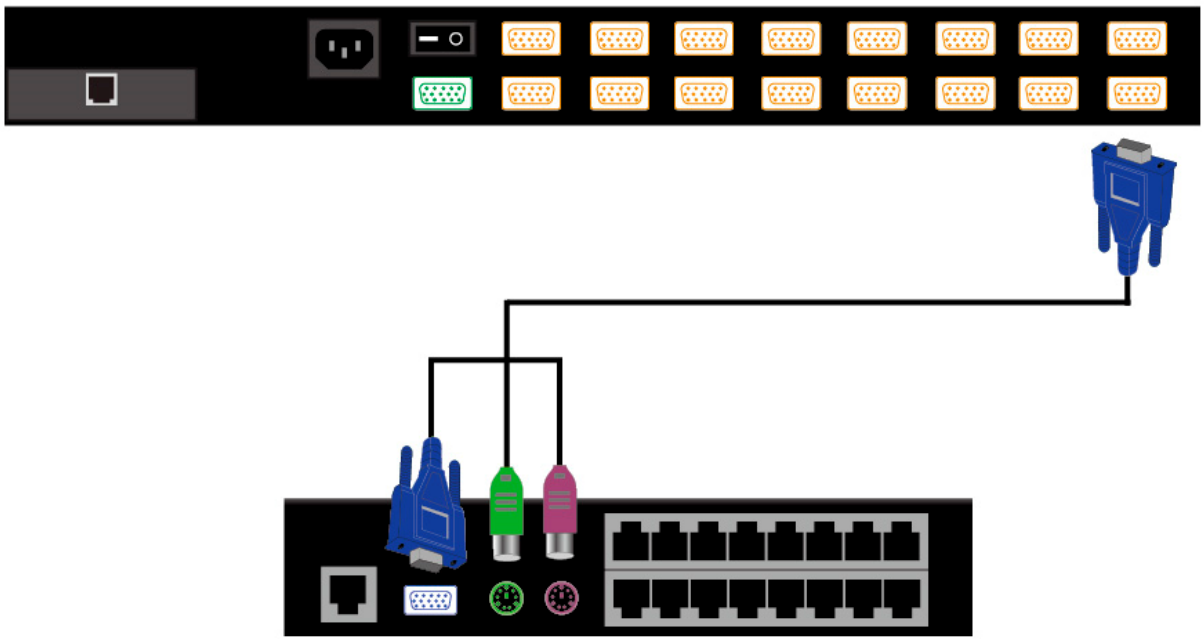



**Daisy Chain Connection**

The On-Screen-Display (OSD) menu will display the port information of the master KVM switch. When the master unit starts up, it will query all daisy chained Slave units and automatically set up the Bank ID for each

Slave unit. Hot Plug function is supported through daisy chain connection. The Master unit will auto-query the daisy chained Slaves every 30 seconds.

You can also daisy chain through any computer port on the KVM switch. This daisy chain method will work with any brand of KVM switch. Please note, you need to change the Hotkey of the slave KVM switches so that the master and slave KVM switches do not use the same Hotkey.



**Daisy Chain through any Computer Port**

## OPERATION

### Push Button Port Selection

The most convenient way to switch between computers is via the push buttons on the LCD console drawer. To select a computer, simply push the corresponding button.

Ports with a powered on computer connected have a Red LED. The currently selected port has a Green LED.

### Hotkey

You can conveniently control the LCD console drawer through simple keyboard Hotkey sequences. To send keyboard Hotkey commands to the LCD drawer, you must **press the Hotkey (**default Hotkey is **Caps Lock + Caps Lock) within 2 seconds**. You will hear a beep sound confirming you are entering the Hotkey mode. If you do not press any key during Hotkey mode within 2 seconds, the Hotkey mode will be disabled and return the keyboard back to its normal state.

The default Hotkey is **Caps Lock + Caps Lock** but you can change the Hotkey to an alternate Hotkey if Caps Lock clashes with any existing applications. To change the Hotkey, please go to the OSD menu.

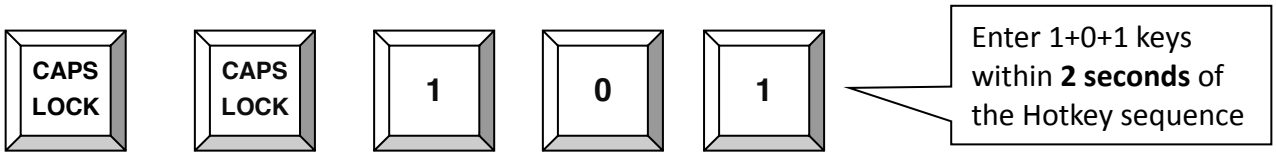
The default Hotkey is **Caps Lock + Caps Lock**, then the keys on the following table list.

| Command | Function |
|---|---|
| Space bar | Brings up the On-Screen-Display (OSD) window |
| ↑ | Switches to the previous port |
| ↓ | Switches to the next port |
| [1, 2...8] bank,<br>[01, 02...16] port | ■ The first digit is the KVM Switch bank number in the daisy chain line. A standalone KVM switch is on bank 1<br>■ The second & third digits are the KVM switch port numbers starting with "01" |
| PgUp | Switches to the previous bank |
| PgDn | Switches to the next bank |
| B | Turns the **beep sound** on/off |
| R | For SUPERVISORS, this will set the OSD back to the factory default values (except the User Security settings) |
| S | For SUPERVISORS, this activates the **Auto-Scan** function |
| U<br><br>P | For SUPERVISORS, this turns the Security function on/off. **(**Default is Off)<br>Log out - only valid when the security function is on |

**Example 1 –** To bring up the OSD window, press **Caps Lock + Caps Lock + Space Bar**

The OSD overlay screen will appear. This overlay menu screen is generated by the LCD drawer and does not affect your computer hardware or software function in any way.

**Example 2 –** To switch to Bank 1 Port 1, press **Caps Lock + Caps Lock and 1 + 0 + 1**




There are two methods to bring up the OSD overlay window.

1. **Activate OSD by using Hotkeys -** press Hotkey twice then press Space bar.
2. **Activate OSD by using your Mouse -**
   Press and hold the **left button** of the mouse and hit the **Esc** key to show the **Status** screen.
   Press and hold the **right button** of the mouse and hit the **Esc** key to bring up the Main Menu.

## On-Screen-Display (OSD)

The OSD menu provides a menu-driven interface to control the LCD KVM switch.

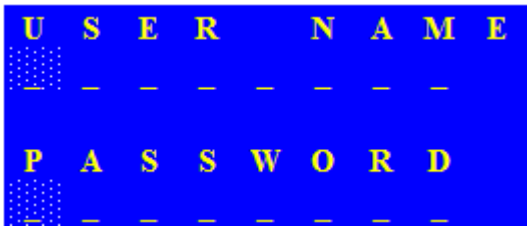
This OSD menu has four different display screens:

1. **Login Window** - If the security function is enabled, when powering on the LCD KVM switch, a login window will be displayed and you will be prompted for the username and password. This OSD function can setup one **SUPERVISOR** and up to eight **USERs**. **SUPERVISOR** can access all OSD functions. **USER** can access only port switching and port search functions.
2. **Status Screen** - The Status screen will be displayed and show the current port settings and Hotkey type.
3. **Port Name** - This menu displays the port status and allows switching between ports.
4. **Main Menu** - There are eight sub-menus to operate.

## Login Window

If the security function is enabled (**default is disabled**), when powering on the LCD KVM switch, a login window will be displayed and you will be prompted for the username and password.

**The Login Window**




The default account is SUPERVISOR

**Default username is eight zeros - 00000000**

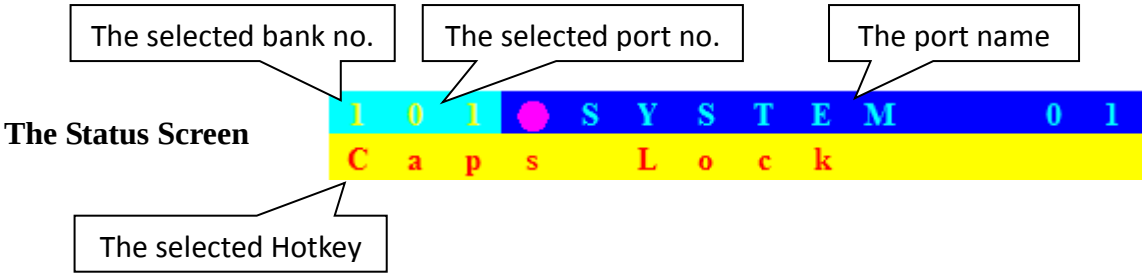
**Default password is eight zeros - 00000000**

The username and password are NOT case sensitive - the OSD will display in upper case.

## Status Screen

After login or port switch by push button, OSD or Hotkey, the Status screen will show up to display the information of current settings - one digit BANK NUMBER, two digit PORT NUMBER, PORT NAME and current Hotkey setting. Pressing any key or moving the mouse will make the Status screen disappear immediately.

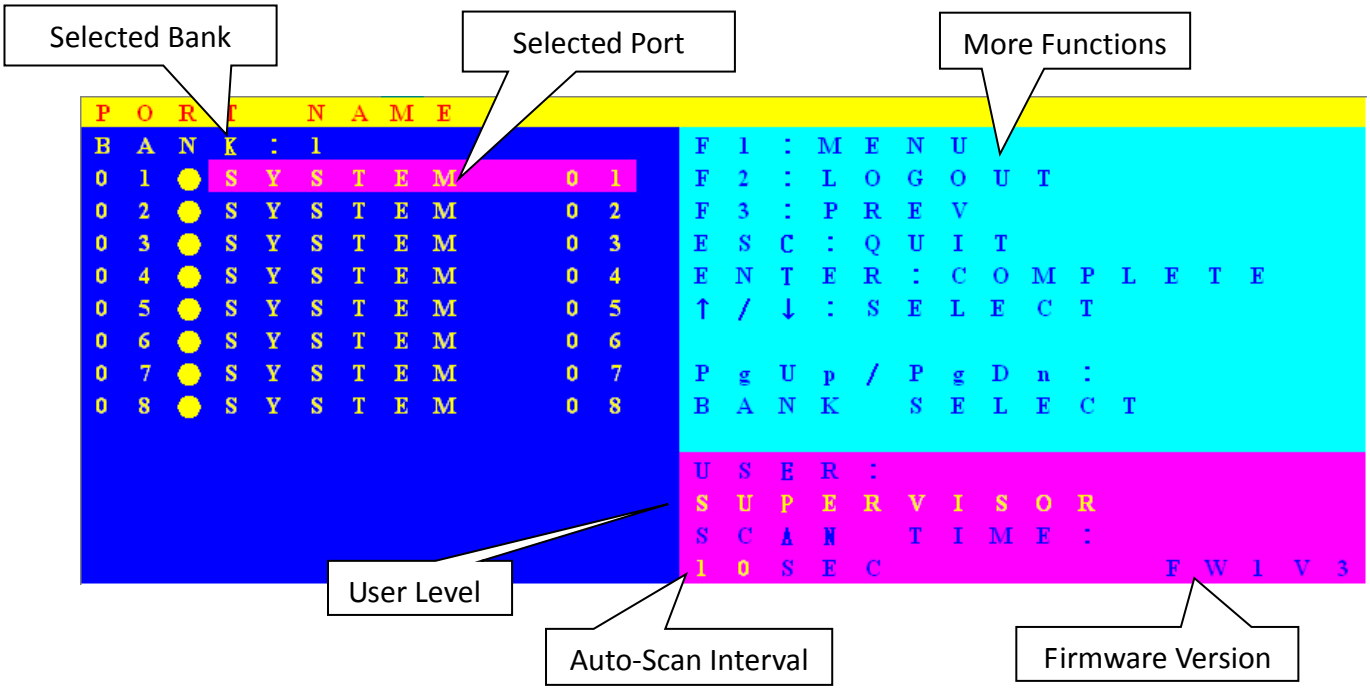
**The Status Screen**



**AUTO-LOGOUT function**

- At the Login window, if there is no input for the username and password for over 1 minute, the screen will disappear. Hit any key to bring up the Login window again.
- During normal operation, if there is no input from the keyboard or mouse for over 10 minutes, the LCD console will turn off the screen and show the Login window prompting for username and password. One more minute of keyboard/mouse inactivity and the monitor will turn off.

## Port Name



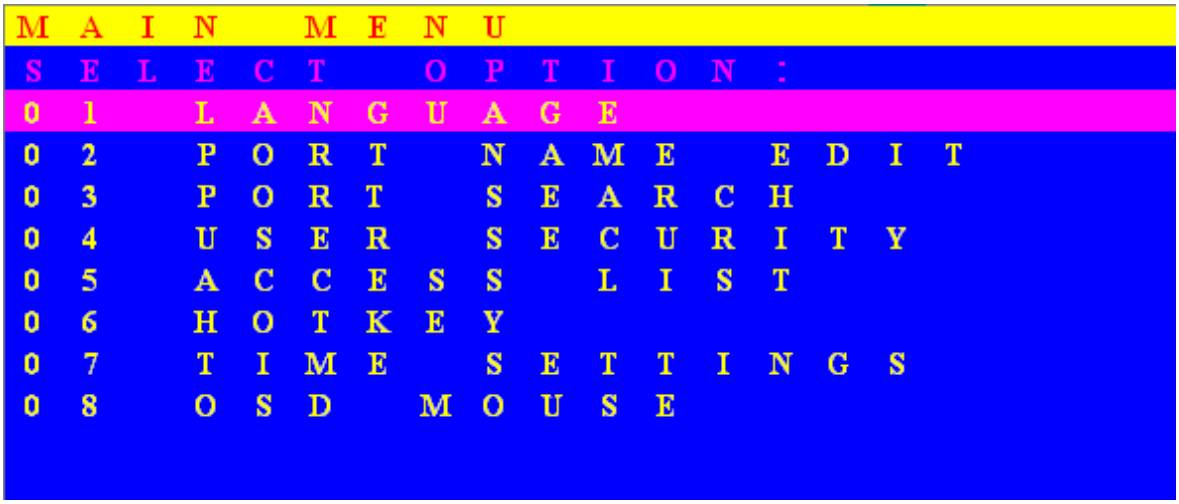

| OSD Function Key | Description |
|---|---|
| F1 | Go to the Main Menu |
| F2 | To log out of OSD. If Security function is enabled, it will show the Login window waiting for username and password. If Security function is disabled it will show up the Status window |
| F3 | Previous Menu |
| Enter | Switch to the selected port |
| ↑ / ↓ | Select the port (press Enter to switch) |
| PgUp | Previous Bank |
| PgDn | Next Bank |
| Esc | Exit |
| 1 | Show ports 01 ~ 08 |
| 2 | Show ports 09 ~ 16 |
| 3 | Show ports 17 ~ 24 |

| | |
|---|---|
| 4 | Show ports 25 ~ 32 |

- **USER** - There are two types of user levels: **SUPERVISOR** and **USER**. The default is **SUPERVISOR.** **SUPERVISOR** can setup and change the OSD settings in the Main Menu. **USER** can access only port switching and port search functions.
- **SCAN TIME** - This is the time interval for the auto-scan function. When the auto-scan function is enabled, the KVM switch will auto-scan the computer ports one by one. Please note, any ports without a powered on computer/server will be skipped during the scan.
- While the OSD is activated, the numeric keypad is not supported. Supported keys are the numeric keys across the top of the keyboard, the arrow keys, PgUp, PgDn and the Enter key.

## Main Menu

There are eight sub-menus to choose from.

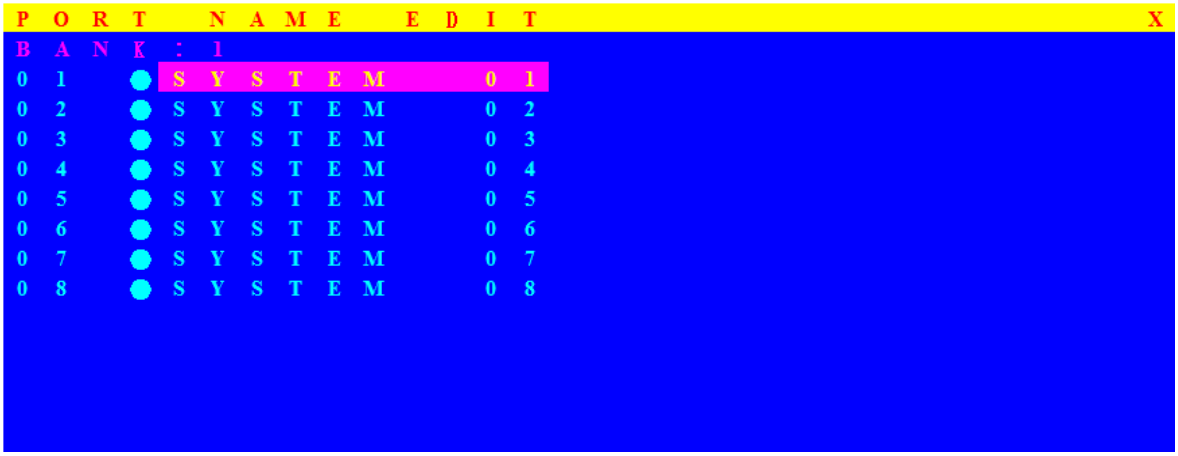



## Language

The OSD supports eight languages: English, French, German, Italian, Spanish, Simplified Chinese, Japanese, and Russian.

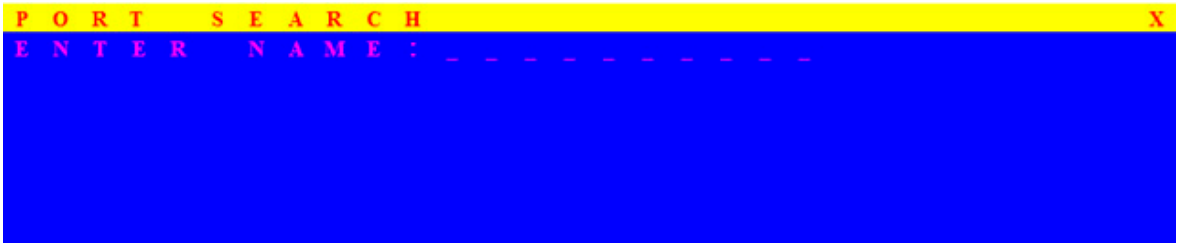
The default language is **ENGLISH**. Move the cursor by keyboard (Up Arrow key ⬆ or the Down Arrow key ⬇) or mouse to select your preferred language.

## Port Name Edit




The first line of the menu is the Bank number. The following lines are the list of port names.
Use the keyboard (Up Arrow key ⬆, Down Arrow key ⬇) or mouse to select the port. After selecting the port, press the **Enter** Key to edit the port name. Press the **Esc** key to cancel the editing without any changes or press the **Enter** key to save your changes. Press the **PgUp** key or **PgDn** key for selecting the previous or next Bank.

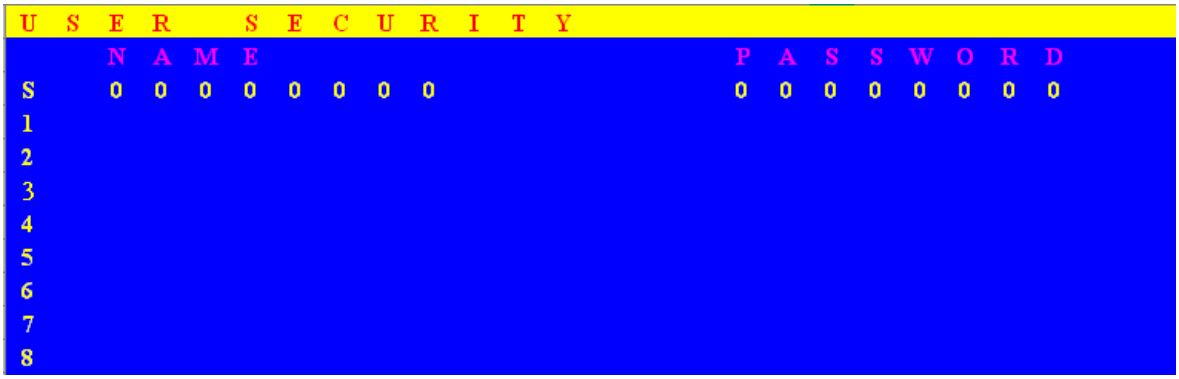
## Port Search




Search for a computer by port name. Using the "*" will show the all the port names.

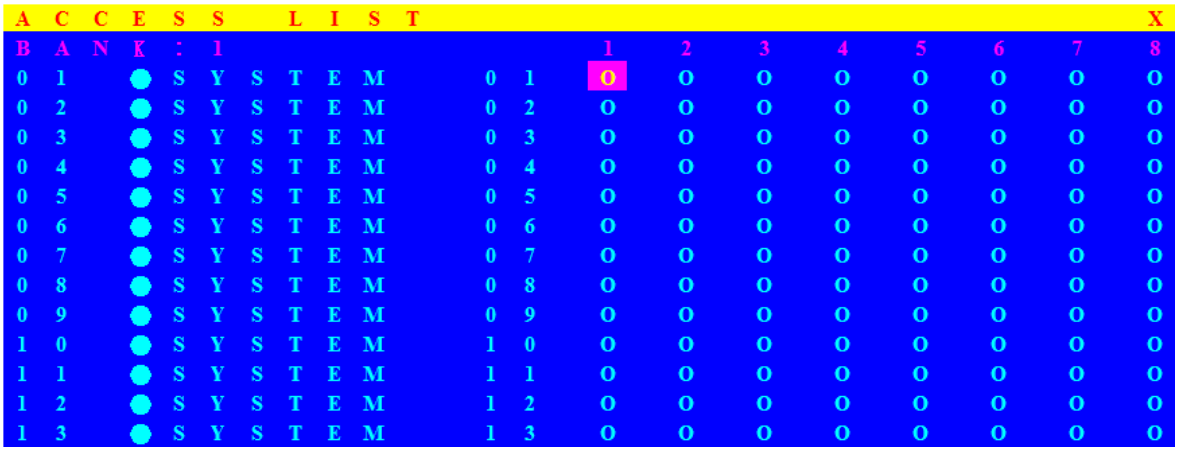
## User Security

There are two types of user levels: **SUPERVISOR** and **USER**. **SUPERVISOR** can access all OSD functions. **USER** can access only port switching and port search functions. You can have only one SUPERVISOR and up to eight USERs.



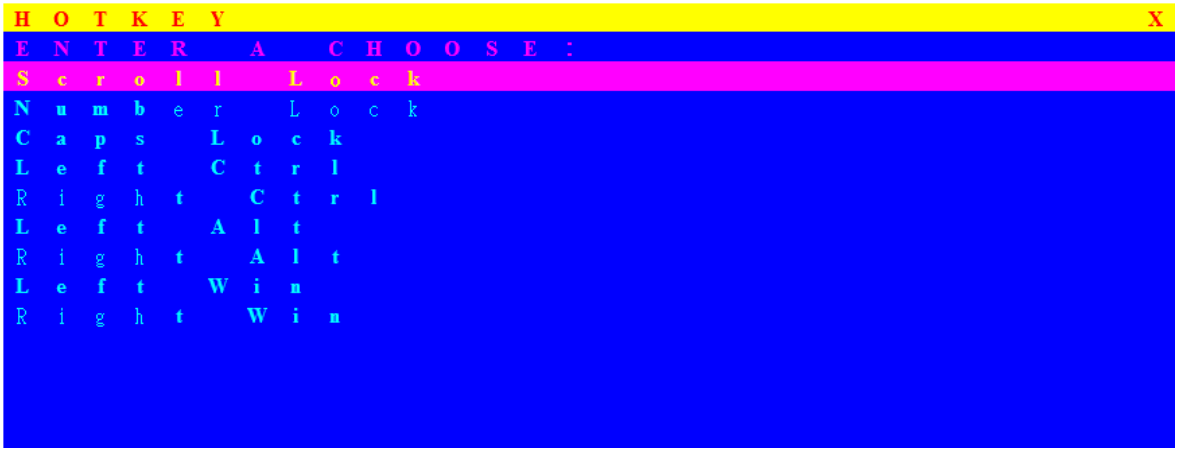

Press the **Enter** key or right mouse button for editing. The "S" in the left column indicates SUPERVISOR, and "1…..8" indicates USERs. The maximum length for both NAME and PASSWORD is eight characters (A~Z and 0~9). NAME and PASSWORD are not case sensitive.

## Access List


ACCESS LIST X
BANK: 1
1 2 3 4 5 6 7 8
01 SYSTEM 01 O O O O O O O O
02 SYSTEM 02 O O O O O O O O
03 SYSTEM 03 O O O O O O O O
04 SYSTEM 04 O O O O O O O O
05 SYSTEM 05 O O O O O O O O
06 SYSTEM 06 O O O O O O O O
07 SYSTEM 07 O O O O O O O O
08 SYSTEM 08 O O O O O O O O
09 SYSTEM 09 O O O O O O O O
10 SYSTEM 10 O O O O O O O O
11 SYSTEM 11 O O O O O O O O
12 SYSTEM 12 O O O O O O O O
13 SYSTEM 13 O O O O O O O O

Only the SUPERVISOR can configure the ACCESS LIST. The first column is the port number, followed by the server/computer name list. The last 8 columns are the access rights of each user. Use the **Enter** key or left mouse button to enable/disable the access rights of each port. "**O**" means to enable access and "**X**" means to disable access.

## Hotkey




The default Hotkey is **Caps Lock + Caps Lock** but you can change the Hotkey to an alternate Hotkey if Caps Lock clashes with any existing applications.

## Time Settings

This is the time interval for the auto-scan function. When the auto-scan function is enabled, the KVM switch will auto-scan the computer ports one by one. Please note, any ports without a powered on computer/server will be skipped during the scan. The interval range is 5 ~ 99 seconds and the default interval is 10 seconds. Press the **Enter** key to save the SCAN TIME setting.

## OSD Mouse

You can change the movement speed of the OSD mouse cursor in this menu. There are three speeds to choose from, “FAST”, “MIDDLE” and “SLOW”.

Use the ⬆ and ⬇ keys on the keyboard to move the highlight bar to the desired speed. Press the **Enter** key to go into effect.

## CERTIFICATIONS

**FCC**

This equipment has been tested and found to comply with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference

(2) This device must accept any interference received. Include interference that may cause undesired operation.

**CE**

This equipment is in compliance with the requirements of the following regulations: EN 55 022: CLASS B.

**C-Tick**

This equipment is in compliance with ACMA’s Electromagnetic Compatibility (EMC) regulatory arrangements under the *Radiocommunications Act 1992*.

**RoHS**

All contents of this package, including products, packing materials and documentation comply with RoHS.

## Trademarks

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